

absolute error was on average 0.15 but was considerably high ( $>0.34$ ) if the observed EQ-5D value was below 0.5. Sensitivity analysis revealed that different EQ-5D value sets resulted in different algorithms but similar predicting ability. **CONCLUSIONS:** Our study showed that there are conceptual differences between the CCQ and EQ-5D and mapping should be considered as second-best option compared to directly collected EQ-5D data. Furthermore, the mapping performance seems to depend on the severity of the study population.

## QL2

### MEASURING PATIENT-RELEVANT TREATMENT BENEFIT IN DERMATOLOGY – DEVELOPMENT AND VALIDATION OF THE SHORT QUESTIONNAIRE “PATIENT BENEFIT INDEX 2.0”

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**OBJECTIVES:** Evidence on patient-relevant treatment benefit is the main criterion for reimbursement decisions in many European countries. Usually, an increase of quality of life (QoL) during treatment is used as benefit indicator. The Patient Benefit Index (PBI) method, in contrast, evaluates benefit retrospectively: Before treatment, patients rate importance of treatment goals; after treatment, they rate goal achievement. This prevents any bias due to response shift which has repeatedly been found in pre-post QoL assessment. Here, we developed a short PBI version (“PBI 2.0”) applicable to different skin diseases. **METHODS:** Treatment goal items for the PBI 2.0 were developed based on nine validated disease-specific PBI versions. Items were tested for content, completeness, and comprehensiveness in qualitative interviews with  $n=16$  patients with atopic dermatitis, leg ulcers, psoriasis, and vitiligo. Items were revised on basis of patient feedback. The PBI 2.0 was tested for convergent validity, completeness, and congruence with disease-specific PBI versions in a cross-sectional study on  $n=379$  patients with the above-mentioned diagnoses. **RESULTS:** The 74 disease-specific items could be condensed to 15 pilot items. Based on the qualitative interviews, we could reduce to 12 items. The majority of patients rated the PBI 2.0 to be comprehensible (93–98%, depending on diagnosis group), readable (94–100%), easy to answer throughout (78–90%), and complete (65–88%). Treatment goals mentioned as missing mostly concerned goals unrelated to benefit of medical treatment (e.g. information on the disease). The percentage of missing values ranged from 0.0% to 2.9%. PBI 2.0 preference-weighted global scores correlated significantly with QoL as measured with Dermatology Life Quality Index and EQ-5D ( $r=0.19$  to  $0.58$ ). Convergent validity of the PBI 2.0 and the respective – about twice as long – disease-specific versions were equal, except for the vitiligo version. **CONCLUSIONS:** The PBI 2.0 is a qualitatively and quantitatively validated short questionnaire on patient-relevant treatment benefit in dermatology.

## QL3

### THE MEASUREMENT OF HEALTH-RELATED QUALITY OF LIFE: GERMAN FINDINGS FROM THE MULTI-INSTRUMENT COMPARISON (MIC) STUDY

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**OBJECTIVES:** Different multi-attribute utility (MAU) instruments are known to produce different values for “utility” and measure different constructs, despite the common label “utility”. To date, the Multi-Instrument Comparison (MIC) project has been the largest comparative study of health and well-being instruments undertaken worldwide. Here we report the first results from the German branch of the study. **METHODS:** A total of 1269 German respondents (either healthy or suffering from defined chronic disorders, i.e., asthma, arthritis, cancer, depression, diabetes, hearing loss, heart disease) were recruited and participated in the study, completing various MAU instruments, including the EQ-5D, SF-6D, HUI3, 15D, QWB, AqoL-4D and 8D). Cross-validation tests drew heavily on correlation. Preliminary findings, based upon Pearson correlation coefficients (indicating the extent to which changes in one variable correspond with changes in another), showed low correlations between measures of utility and measures of subjective well-being. While preferences might differ from subjective well-being, their correlation might be higher. Hence, a better measure should be intraclass correlation (ICC). **RESULTS:** Intraclass correlations between MAU instruments ranged from to 0.8 (HUI3 vs. AqoL-8D) to 0.4 (AqoL-4D vs. 15D). Linear regression results, reflecting the comparative performance of the various MAU instruments with regard to changes in measured utilities (as applied in standard cost utility analysis), and detailed results including pairwise comparisons of instruments, especially as to sensitivity to changes in a given dimension, will be presented. **CONCLUSIONS:** A major conclusion of the present study is that, despite some similarity in the mean scores, the instruments tested are dissimilar with regard to virtually all other criteria used to compare them. In effect, each instrument appears to measure a different construct of “health”. Implications for the presumably “generic” measurement of “utility” may be far reaching and will be discussed.

## QL4

### PSYCHOMETRIC VALIDATION OF PERCEIVED DEFICITS QUESTIONNAIRE – DEPRESSION (PDQ-D) IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER (MDD)

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**OBJECTIVES:** The Perceived Deficits Questionnaire (PDQ) provides a self-report measure of cognitive dysfunction. The current work aims at assessing the psychometric properties of the PDQ adapted for MDD (PDQ-D). **METHODS:** A non-interventional, online panel survey with baseline assessment and 6-week follow-up of US and UK residents (aged  $\geq 18$  years) with and without MDD [diagnosed with depression by a physician and current Patient Health Questionnaire-9 (PHQ-9) score  $\geq 10$ ]. In addition to PDQ-D, the following instruments were included: Medical

Outcomes Study Cognitive Functioning-Revised [MOS COG-R]; PHQ-9, Patient Global Impression of Severity [PGIS] and Change [PGIC]; SF-36 Health Survey [SF-36], Lam Employment Absence and Productivity Scale [LEAPS], Sheehan Disability Scale [SDS] and Work Productivity and Activity Impairment: Specific Health Problem [WPAI:SHP]. **RESULTS:** The study population consisted of 855 subjects at baseline (418 US and 437 UK), with MDD patients representing 49% of the sample in each country; 169 and 153 MDD patients were invited for the follow-up in the US and UK, respectively. Internal consistency was high for the total scale and for the four proposed subscales (Attention, Retrospective memory, Prospective memory, and Planning), with Cronbach's alpha ranging from 0.81 to 0.96. Convergent validity was supported by strong correlations with other measures of cognitive functioning (0.8 Pearson's coefficient) and moderate correlations with several construct measures known to be associated with cognitive functioning, including health-related quality of life, productivity at work, and other functional impairment (Pearson's coefficients ranging from 0.3 to 0.6), and by substantial differences in scores in subgroups known to differ in cognitive functioning impairment. The PDQ-D was also responsive to changes in depression symptom severity. Confirmatory factor analyses supported the scoring of a global scale for perceived cognitive functioning. **CONCLUSIONS:** The PDQ-D is a reliable, valid and responsive instrument for assessing MDD patients' perception of deficits related to cognitive functioning.

## RESEARCH POSTER PRESENTATIONS – SESSION I DISEASE-SPECIFIC STUDIES

### INDIVIDUAL'S HEALTH – Clinical Outcomes Studies

#### PIH1

#### MOTHERS' OWN MILK FOR THE FEEDING OF PRETERM INFANTS: A SYSTEMATIC LITERATURE REVIEW

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**OBJECTIVES:** To conduct a systematic review to examine the incremental benefits of mothers' own milk (MM), with or without fortification, compared with donor milk (DM) and/or preterm formula (PF) for the nutritional support of preterm infants both in the neonatal intensive care unit (NICU) and following hospital discharge. **METHODS:** English-language studies published post-1990 were identified from electronic databases (Medline, EMBASE and Cochrane Library) and conference proceedings. Eligible studies enrolled infants with mean gestational age less than 35 weeks with no restriction on geographical location. **RESULTS:** Thirty-three unique studies met eligibility criteria: United States ( $n=12$ ), Canada ( $n=2$ ), Australia ( $n=2$ ), Mexico ( $n=1$ ), Israel ( $n=2$ ), Europe ( $n=13$ ) or multinational ( $n=1$ ). There was a paucity of both RCT data ( $n=7$ ) and studies which reported exclusive use of MM feeding ( $n=3$ ). In addition, there was considerable heterogeneity between studies with regard to study design, duration of follow up and amounts of MM ingested, and a robust meta-analysis was therefore not feasible. However, a significant beneficial effect for MM over DM and/or PF for the incidence of sepsis, necrotizing enterocolitis (NEC) and longer-term neurodevelopment was reported in a number of individual studies. With regard to anthropomorphic outcomes of body weight, length and head circumference, there was no clear consensus on the effect of feeding regimen. Sixteen studies reported the relationship between the dose of MM received and outcomes; increased MM dosages in the feeding regimen were associated with significantly lower rates of sepsis, NEC, and hospital readmissions, reduced NICU costs, and improved neurodevelopment. **CONCLUSIONS:** Exclusive or high-dose MM with or without fortification is associated with short- and long-term beneficial effects in preterm infants. These results confirm MM to be the optimal nutrition for preterm infants and stress the importance of developing comprehensive strategies to overcome the challenges of providing MM and improving breastfeeding rates in preterm infants in the NICU.

#### PIH2

#### UTERINE-SPARING SURGICAL TREATMENT MODALITIES IN WOMEN WITH UTERINE FIBROIDS: A SYSTEMATIC REVIEW AND INDIRECT TREATMENT COMPARISON

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**OBJECTIVES:** To evaluate the safety and effectiveness of conservative surgical treatments for uterine fibroids in women who wish to preserve their uterus. **METHODS:** A systematic literature search of electronic databases (MEDLINE, EMBASE, CENTRAL) and grey literature up to October 2012 identified 5 RCTs (436 patients): 2 comparing uterine artery embolization (UAE) with myomectomy (MYO) and 3 comparing UAE with laparoscopic uterine artery occlusion (LUAO). Primary outcome measures included patients' satisfaction, re-intervention and ovarian failure rate. Secondary outcomes were clinical failure, hysterectomy and complication rates, hospitalization and recovery times, pregnancy rate, pregnancy complications and live-birth rate. Standard and network meta-analysis were performed on relevant outcomes. **RESULTS:** Of the three most popular uterine-sparing surgical treatments for fibroids, network meta-analysis showed that MYO and UAE resulted in higher rates of patient satisfaction and lower rates of clinical failure than LUAO in the first year after treatment [OR 2.56, 95%CrI 0.56–11.75, P(better)=11% and 2.7, 95%CrI 1.1–7.14, P(better)=1%; 0.29, 95%CrI 0.06–1.46, P(better)=7% and 0.37, 95%CrI 0.13–0.93, P(better)=2% respectively]. Moreover, MYO resulted in lower re-intervention and hysterectomy rates than UAE and LUAO [0.08, 95%CrI 0.02–0.27, P(better)<1%, 0.08, 95%CrI 0.01–0.37 P(better)<1%]; 0.16, 95%CrI 0.01–0.85 P(better)=2%, 0.15 95%CrI 0–8.74 P(better)=16% respectively] even though the later techniques had an advantage over MYO due to shorter hospitalization and quicker recovery. There was no evidence of convincing difference between the three techniques in the number of women experiencing ovarian failure, minor or major complications. However, MYO may lead to better conception outcomes in